VA QUERI Stroke

Quality Enhancement Research Initiative

Stroke

Stroke is the third leading cause of death in the United States. More than 600,000 persons suffer a stroke each year, resulting in an approximate cost of $30 billion. Of those persons who suffer a stroke, about one-third will die and another third will have significant residual disabilities. The Stroke Quality Enhancement Research Initiative (Stroke QUERI) was created to employ the QUERI process (see back page) to identify and improve upon important areas in stroke prevention and treatment for the veteran population.

Since its inception in 1998, Stroke QUERI has focused on three major areas: Stroke Prevention (i.e., anticoagulation, hypertension, carotid endarterectomy), Stroke Management (i.e., effective practices in acute stroke management and cost effectiveness), and Post Stroke Rehabilitation (i.e., health-related quality of life). For example, as part of their work in stroke prevention, Stroke QUERI developed a Systematic Anticoagulation Management (SAM) Survey that assesses the existence and quality of anticoagulation across VA medical centers. In addition, an aggressive agenda for stroke prevention developed by this QUERI group was published in *Practice Matters*, an HSR&D publication that addresses a single health care issue – in this case, "Primary Stroke Prevention," (Vol. 1(4), May 1999). Stroke QUERI is now working to translate the results of their research into practice.

Stroke QUERI and Translation 2000

Stroke QUERI plans to focus its translation efforts on anticoagulation, particularly for patients with atrial fibrillation (AF). Patients with AF have a fivefold increased risk of stroke, with approximately 80,000 strokes in the United States attributable to AF each year. The majority of veterans with AF are likely to possess risk factors that would place them in a group in which well-controlled warfarin anticoagulation would reduce stroke rates. For eligible patients with AF, warfarin can reduce the risk of stroke by 60 percent. Although warfarin anticoagulation is the established standard for preventing stroke in patients with AF, less than half of eligible patients receive warfarin and less than half of those who do are optimally controlled. However, because of a lack of standardized reporting and tracking of patients with AF in the VHA, it is unknown how many veterans with AF go undetected or untreated.

The Systematic Anticoagulation Management Survey provides valuable information for this translation initiative. This survey shows that 73 percent of VAMC facilities have some form of anticoagulation management, but indicates that there seems to be system-wide variation. Furthermore, 32 percent of those facilities report no automated way of tracking patients. To establish a clear picture of the status of systematic anticoagulation management within VA, Stroke QUERI is examining the survey data within the context of event outcome rates and warfarin prescription rates for patients with AF. Analysis at the facility level should provide vital information as to the effectiveness of what is considered good systematic anticoagulation management. When these analyses are complete, Stroke QUERI will educate providers on the necessity of improved systematic anticoagulation management.

Additional Stroke QUERI Findings and New Projects

Here are a few of the exciting areas of Stroke QUERI research:

- *Acute Stroke Management Toolbox:* This Toolbox provides guidelines and a treatment algorithm that were developed by experts to assist facilities in developing local strategies to deliver optimal stroke

The Stroke QUERI Executive Committee

Each QUERI Executive Committee is co-chaired by a research expert and a clinician. The Stroke QUERI Research Co-Chair is **Eugene Z. Oddone, MD, MHSc**, and Clinical Co-Chair is **Lawrence M. Brass, MD**. Stroke QUERI's Executive Committee includes 10 other experts in the field of stroke: Linda Alley, PhD, RN, Leigh Anderson, MD, Larry Bruce Goldstein, MD, John L. Gray, MD, Ronnie D. Horner, PhD, Alan Jacobson, MD, David B. Matchar, MD, Maria Mullins, MD, MBA, Amy K. Rosen, PhD, and Susan R. Winkler, PharmD, BCPS.

care. A major focus of this effort is to translate recent therapeutic advances into clinical practice. The toolbox also includes information on the management of risk factors, as well as secondary prevention medications such as warfarin and aspirin. The Stroke QUERI Toolbox (including guidelines and a treatment algorithm) will be published in the *Federal Practitioner* and is currently accessible from the Stroke QUERI web page at http://hsrd.durham.med.va.gov/queri/default.htm.

- *Systematic Anticoagulation Management Video:*
  A comprehensive video on this topic was recently produced, using a VA anticoagulation clinic as a leading example of effective and successful systematic anticoagulation monitoring. The video presents active care from a qualified provider and offers information about ongoing patient education, and long-term stroke management. The video will be available for VA clinics as an education tool to aid health care professionals when initiating quality improvement of anticoagulation services across the nation.

- *Stroke Policy Model – Cost effectiveness of stroke prevention and treatment strategies:*
  With the passing of the new Millennium Health Care Act, VA's responsibility for the care of long-term health care patients is significantly increased; this has tremendous implications for VA patients who are stroke survivors. To address this, Stroke QUERI is in the process of establishing the Stroke Policy Model, which allows analyses and cost-effective comparisons of various stroke prevention and treatment strategies. This model should assist in making decisions about prioritizing stroke prevention, treatment and rehabilitation based on comparative cost-effectiveness ratios.

- *Practice Variation:*
  A pilot analysis revealed that 80 percent of stroke patients receive antithrombotic therapy at discharge, but that there is wide variation among VA medical centers. Analyses of the variation in stroke practice, cost allocation, and the distribution of resources across VISNs is currently underway. If findings indicate that regional variation of therapy does indeed correlate to cost allocation and distribution of resources, then a good argument can be made for performance standards to encourage appropriate pharmacologic management.

Quality Enhancement Research Initiative

QUERI currently focuses on eight conditions that are prevalent and high-risk among veteran patients: Chronic Heart Failure, Diabetes, HIV/AIDS, Ischemic Heart Disease, Mental Health, Spinal Cord Injury, Stroke, and Substance Abuse.

The QUERI Process

The QUERI process includes six steps:

1) identify high-risk/high volume diseases or problems;
2) identify best practices;
3) define existing practice patterns and outcomes across VA and current variation from best practices;
4) identify and implement interventions to promote best practices;
5) document that best practices improve outcomes; and
6) document that outcomes are associated with improved health-related quality of life and systems improvements.

Contact for general QUERI information:
Lynn McQueen, DrPH, RN
Associate Director for QUERI
Health Services Research and Development Service
Tel: 202/273-8227
E-mail: lynn.mcqueen@mail.va.gov

VA's Research and Development QUERI Website: http://www.va.gov/resdev/queri.htm

Stroke QUERI direct web link: http://hsrd.durham.med.va.gov/queri/default.htm

Contact information for Stroke QUERI:
Aileen Ward Burress, RN, CCRP
QUERI Stroke Program Coordinator
VA Medical Center,
HSR&D (152)
508 Fulton Street
Building 16, Room 70
Durham, NC 27705
Tel: 919/286-0411 x1-7103
Fax: 919/416-5836
E-mail: awburres@duke.edu